

Short report: Piloting a new pharmacy internship support programme in Namibia

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Background

Namibia is a large, sparsely populated country in southern Africa that experiences significant health challenges typical of the region, in particular, HIV, tuberculosis (TB) and maternal and neonatal health, but also a growing burden of non-communicable disease (MoHSS, 2013). It is also in the region of the world with the fewest numbers of pharmacists, such that in-country training has recently become a critical issue (FIP, 2009).

The University of Namibia (UNAM) admitted its first students to the four-year Bachelor of Pharmacy (Honours) degree in 2011 and has now graduated three cohorts of students (Rennie *et al.*, 2011; 2014). The UNAM School of Pharmacy is the only higher education institution in Namibia training pharmacy graduates that includes a clinical foundation and now offers post-graduate clinical pharmacy and pharmaceutical technician training (Rudall *et al.*, 2015).

However, similar to education systems in the United Kingdom (UK) and South Africa, graduates of pharmacy must successfully complete a pre-registration internship training in practice prior to registration as a pharmacist. This training can take place in any appropriately accredited pharmacy (usually community or hospital pharmacy) in Namibia and, with a significant increase in pharmacy graduates, provides a challenge for practice tutors - the ratio between intern and pharmacist must be one-to-one. The training is largely practical with interns needing to pass professional exams including legal and competency.

Although not an academic programme, the UNAM School of Pharmacy decided to support their graduates and associated tutors by providing a modular internship

programme via an online learning platform. This programme was piloted in 2017 and is briefly described in the current article.

Description and development of programme

The programme was developed by Namibian-registered pharmacists who had been involved in pharmacist intern training without initial reference to existing pre-registration or internship programmes. It was hoped this would better focus on the specific needs of Namibia in terms of post-graduate pre-registration training.

In particular, the focus was on pragmatic training around real-life pharmaceutical care issues rather than academic, knowledge-based issues. After the initial 'brainstorm', the core development team referred to wider programmes conducted in other settings to validate and add to the initial developed programme - in terms of ensuring important aspects were not missed - and amended accordingly; this involved a reference to the literature as well as consultation with Namibia-, United States- and UK-based pharmacist educators. Feedback was incorporated and after the general topics were decided, the core team developed the learning modalities.

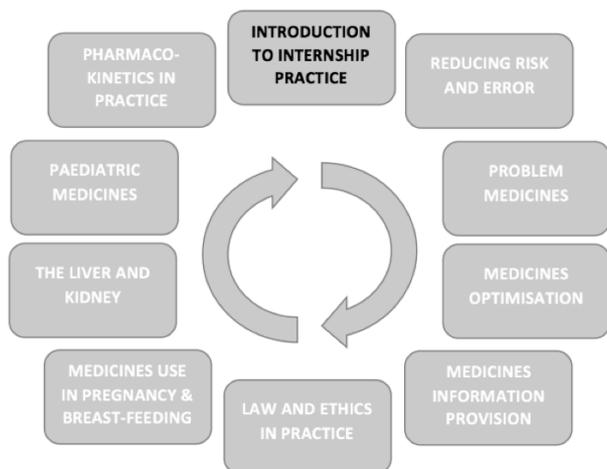
Briefly, the internship programme activities were largely hosted on an online learning management system - Moodle®. This was essential to allow interns practicing all over the country, and sometimes isolated in their practice and training, to participate. However, the online content was complemented by face-to-face fortnightly contact sessions with the programme coordinator in the School of Pharmacy, situated in the capital city,

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Windhoek, in the centre of the country. This provided the opportunity to go over content provided online according to each theme and also for interns to take turns to present cases.

In terms of the programme content, ten general themes (Figure 1) were scheduled for ten months of the year to allow interns to settle in before commencing in February, and acknowledging that the last month interns would be focused on preparation towards their final professional exams and seeking continuing employment. Within each month, four weeks of content were divided between weekly ‘snap lectures’ (short five-ten minute narrated presentations on a particular topic), quizzes, assignments, assigned reading, and additional resources. Throughout the programme interns were encouraged to engage with their practice tutor to discuss the various issues arising and for assistance in their learning. Importantly the first month’s theme dealt with the introduction to the programme and how to use the learning platform and other resources and tools.

Figure 1: Themes of monthly modules offered commencing with Introduction



The content was developed and uploaded on the learning platform. The programme was advertised through the largest representative body (the Pharmaceutical Society of Namibia), and the regulatory body (Pharmacy Council of Namibia) was also informed through its Education Committee.

Through the advertising process upcoming interns and tutors were invited to participate - to date 65 individuals initially engaged with the programme including 20 tutors and 45 interns (there are currently approximately 700 pharmacists registered in Namibia). This represents the majority of interns enrolled in Namibia.

Lessons learned and future aspirations

During implementation, feedback from students attending face-to-face fortnightly sessions suggested that they were not participating fully in the assignment/quiz aspect of the programme as they were overloaded; faculty responded by limiting quiz’s to two per month and only requesting submission of one assignment per month. Faculty also responded to requests to re-schedule themes such that ‘Law and Ethics in Practice’ would come prior to a mid-year legal exam to better support interns.

On completion of the programme feedback was collected via online survey from participants (n=16; Figure 2 and 3). The programme was generally well received with the majority of respondents stating they would recommend to others; also that the programme was relevant to learning and practice.

Figure 2: Student feedback regarding the implementation of the programme.

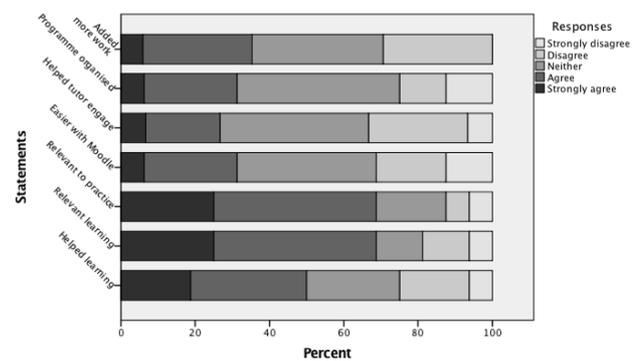
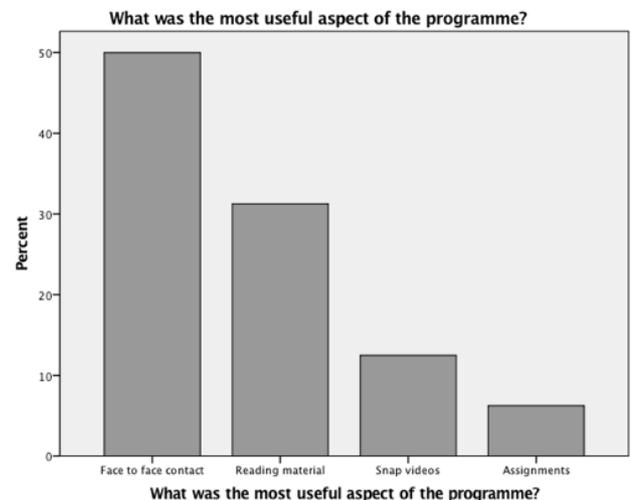


Figure 2: Student feedback regarding the usefulness of the programme.



However, respondents were less favourable with respect to organisation, the online learning platform used, and whether the programme helped interns engage with their site tutors. In relation to the feedback provided and the experience of the pilot year, minor changes were agreed by participating faculty and tutors.

To remedy the difficulties in accessing the online platform it was decided to articulate a physical workbook that would mirror the resources on the learning platform but that the interns could complete without having to log on to the learning platform.

In addition, it was decided to provide two one-day events each year for all interns in Namibia to allow a greater degree of material to be covered for those who do not live locally but able to travel to participate. The School of Pharmacy shared their experience with other Schools in the Faculty of Health Sciences to support the development of similar programmes, for example, in the medical internship. The School also intends to develop a tutor support system to complement the internship programme and involve tutors more.

The authors strongly feel that the only way of providing impactful healthcare is by ensuring that graduates of healthcare professions are systematically trained to high standards of care and shown to be competent prior to practice and registration.

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Appendix 1

Breakdown of monthly topics and weekly themes

TOPIC	WEEK	SNAP LECTURE THEME
INTRODUCTION TO INTERNSHIP PRACTICE	1	Introduction
	2	Interventions
	3	Antimicrobial stewardship
	4	Ward rounds/ observations
REDUCING RISK AND ERROR	1	Safe systems
	2	Second checks
	3	Speaking up
	4	Reporting and learning
PROBLEM MEDICINES	1	High risk medicines
	2	Critical medicines
	3	Interactions
	4	Injectables
MEDICINES OPTIMISATION	1	TDM & medicines monitoring
	2	ADR reporting
	3	Medicines counselling
	4	Adherence
MEDICINES INFORMATION PROVISION	1	Revision of MI
	2	Asking the right questions
	3	Responding appropriately
	4	Resources
LAW AND ETHICS IN PRACTICE	1	Ethics in practice
	2	Revising the legal framework
	3	Specific laws relating to practice
	4	Revision
MEDICINES USE IN PREGNANCY AND BREAST-FEEDING	1	PK in pregnancy & breastfeeding
	2	Drugs in pregnancy
	3	Drugs in breast-feeding
	4	Treating common conditions
THE LIVER AND KIDNEY	1	PK – renal
	2	Renal dosing principles
	3	PK – hepatic
	4	Hepatic dosing principles
PAEDIATRIC MEDICINES	1	PK of paediatrics: Intro
	2	PK of paediatrics
	3	Formulations
	4	Calculations
PHARMACOKINETICS IN PRACTICE	1	Revision of pharmacokinetics
	2	BCS Biowaiver seminar
	3	Biowaivers & registration of generics
	4	Pharmacokinetic Drug Interactions